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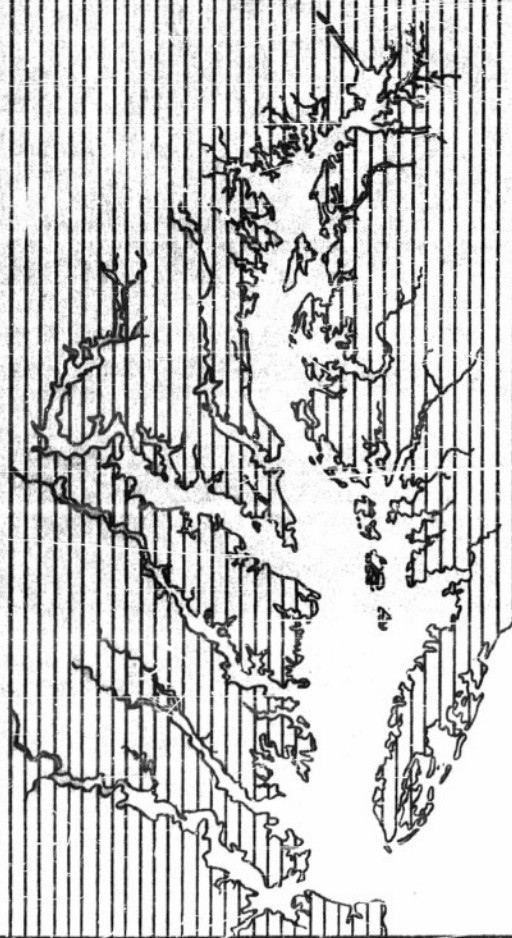
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THE CHESAPEAKE BAY INSTITUTE of The Johns Hopkins University



DATA REPORT 20
CHOPTANK RIVER SUMMER CRUISE
28 June — 1 July 1952

Reference 54-7
August 1954

CHESAPEAKE BAY INSTITUTE
THE JOHNS HOPKINS UNIVERSITY

DATA REPORT 20

CHOPTANK RIVER-SUMMER CRUISE
28 June - 1 July 1952

This report contains results of work carried out for: the Office of Naval Research of the Navy Department under research project NR 083-016, Contract Nonr 248(20), and research project NR 083-070, Contract Nonr 248(30); the State of Maryland (Department of Research and Education); and the Commonwealth of Virginia (Virginia Fisheries Laboratory).

August 1954
Reference 54-7

D. W. Pritchard
Director

The data presented in this report were collected in the Choptank River during the period 28 June to 1 July 1952.

The purpose of this cruise was to study the physical and chemical structure of the area in the summer season.

The presentation of data in this report does not constitute publication and the information may be subject to modification at a later date.

Location of Stations

An arbitrary line designating the mouth of the river was chosen from red nun buoy 16FF off James Island to black spar 3 off Sharps Island (See U. S. Coast and Geodetic Survey Chart 551, November 1951). The stations were chosen upstream from this line in the deepest part of the channel. The Station designators consist of the letters CK followed by the numerals representing the number of nautical miles to the nearest mile upstream from the mouth. Thus CK-30 is the station 30 nautical miles upstream from the line designating the mouth of the river.

Station	North Latitude	West Longitude
CK-6	38°39'09"	76°18'02"
CK-12	38°38'42"	76°10'43"
CK-17	38°35'56"	76°05'04"
CK-20	38°34'32"	76°01'18"
CK-24	38°36'47"	75°58'52"
CK-26	38°38'32"	75°57'48"
CK-30	38°41'56"	75°58'37"

Observations

Current speed and direction were measured with the confined submerged drags described in Pritchard, D. W. and W. V. Burt (1951), "An Inexpensive and Rapid Technique for Obtaining Current Profiles in Estuarine Waters." J. Mar. Res. V. 10 No. 2.

Temperature and salinity were determined by means of the Conductivity-Temperature Indicator (CTI). This is an instrument in which a nickel resistance thermometer and a conductivity cell have been combined to provide direct continuous readings of water temperature and conductivity. The sensing elements are located in a single under water unit that can be lowered and raised on a two hundred and fifty foot cable. Two four digit counters in portable units can be conveniently located on deck or in the ship's laboratory. Direct reading of temperature can be obtained in the range - 2.00°C to 32.00°C from one of the counters. Calibration of the thermal unit indicates that readings are within $\pm 0.05^\circ\text{C}$ of the true temperature. Direct conductivity readings in the range 0 to 50.00 millimhos can be obtained from the second counter. Salinity is obtained from the temperature and conductivity data with the aid of curves plotted from accepted functions of the three parameters. Field calibrations have been made by comparing data from the CTI with titrated values of chlorinity and temperatures from mercury thermometers. A calibration tank is being constructed which will allow simultaneous calibration of the thermal and conductivity units.

Oxygen was determined by the modified Winkler titration method.

pH was determined with a Beckman pH meter.

Inorganic phosphate analyses were made by the ceruleomolybdate method using stannous chloride as the reducing agent. All samples were centrifuged with a Foerst Centrifuge prior to analysis. Sample size was 50 ml. Within 10 to 20 minutes after addition of the stannous chloride, the transmissiion of the sample at a wave length of 700 μ was measured using a Beckman Model DU Spectrophotometer or a Scripps Automatic Servo-Operated Photometer. Measurements were calibrated against standard KH_2PO_4 reference solutions. Analyses for inorganic phosphate were made on shipboard within two hours

after the samples were drawn. No salt correction has been applied. An estimate of the precision of the method from triplicate analyses indicated deviations of $\pm 10\%$ of the reported values.

The turbidity was determined with a Beckman Model DU Spectrophotometer by measuring the transmission through a 10 cm. cell containing the sample at the indicated wave lengths. In order to minimize the interference by settling, samples for these analyses were drawn from the Nansen bottles or pumped samples immediately after they reached the deck laboratory. The results are expressed as extinction for each wave length.

The chlorophyll analyses were made by a method developed at the Chesapeake Bay Institute. This method consists of running a one liter sample through a Foerst Continuous Centrifuge in 15-18 minutes. The collected material is transferred to a 40 ml centrifuge tube with a rubber policeman and the cup rinsed with distilled water several times. The material is centrifuged and the supernatant decanted. Methyl alcohol is added and the sample is placed in the dark at room temperature for four to eight hours. After this time the sample is made up to 40 ml, the solids are centrifuged out, and the percent transmission of the supernatant fluid is determined at 500, 625, 635, 667, and 750 $m\mu$. The results have been corrected for background scattering and absorption by small particles and expressed as mygrams (10^{-6} grams) per liter.

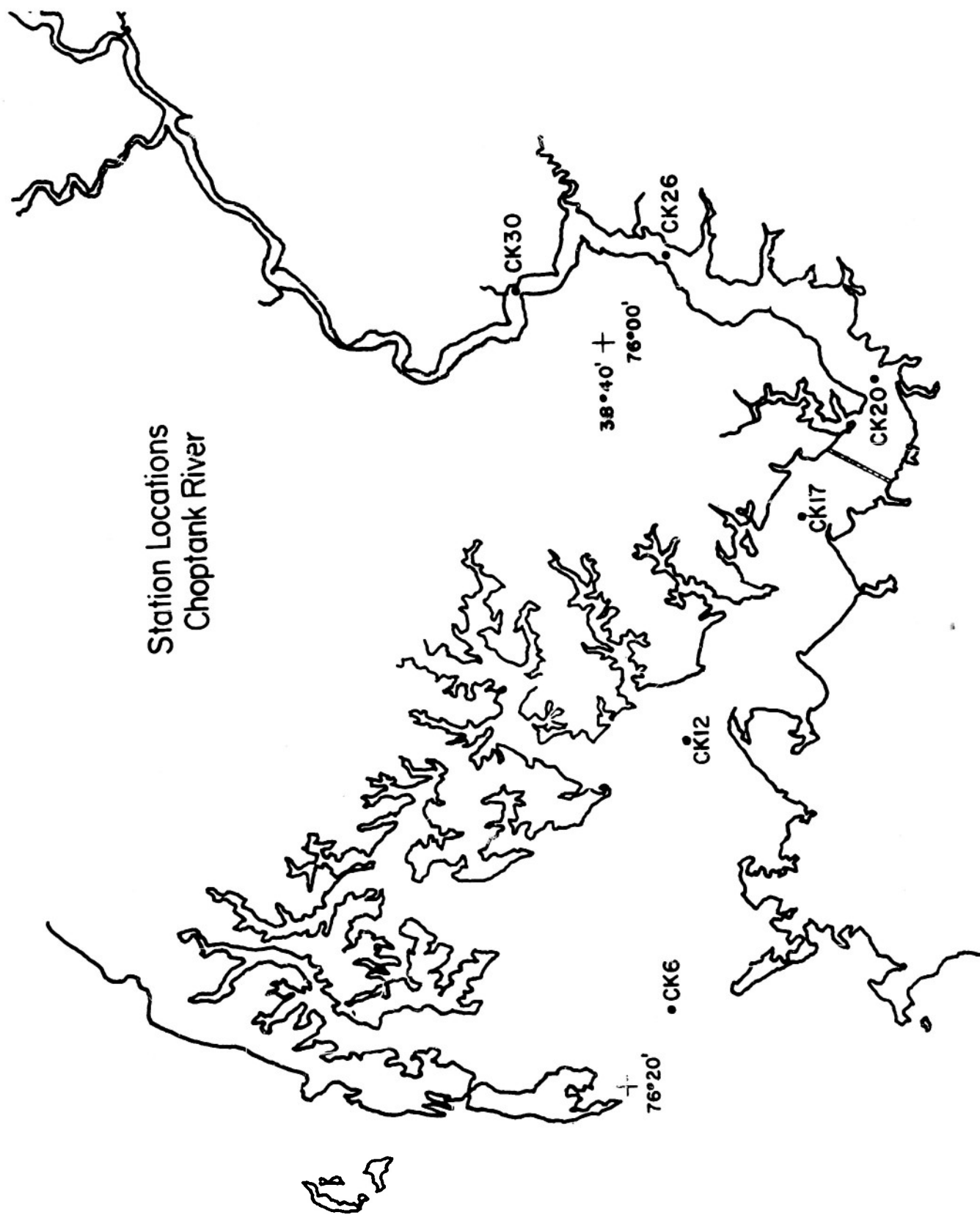
Alkalinity was determined by the method found in Anderson, D. H. and R. J. Robinson, (1946), "Rapid Electrometric Determination of the Alkalinity of Sea Water". Industrial and Engineering Chemistry, Analytical Edition, Volume 18, No 12, 1946.

Weather is reported in the following code:

<u>Code</u>	<u>Description</u>
00	Cloudless (from no clouds up to 1/10 coverage)
01	Partly cloudy (from 1/10 to 5/10)
02	Cloudy (over 5/10 up to 9/10)
03	Overcast (over 9/10)
04	Low fog, on ground or at sea
05	Haze
07	Distant lightning
10	Precipitation within sight
11	Thunder, without precipitation
13	Ugly, threatening sky
14	Squally weather
16	Waterspout seen
19	Signs of tropical storm
40	Fog
49	Fog in patches
51	Intermittent drizzle
52	Continuous drizzle
57	Drizzle and fog
58	Drizzle and rain, mixed
61	Intermittent rain
62	Continuous rain
67	Rain and fog
69	Rain and snow, mixed
71	Intermittent snow (in flakes)
72	Continuous snow (in flakes)
77	Snow and fog
78	Frozen drizzle (grains of snow)
79	Ice crystals or frozen rain drops
81	Rain showers
83	Snow showers
88	Hail, or rain and hail showers
93	Thunderstorm, with rain (or snow) but without hail
94	Thunderstorm, with hail
97	Heavy thunderstorm

Wind force is given in Beaufort scale units.

Station Locations
Choptank River



Section A
Salinity, Temperature, Current, and Meteorological Data

CK-6 28 June 52		1400 EST Depth 52'	Weather 05 Wind NNW-1 Air 31.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.24	9.20	207	0.38
5	27.32	9.33	196	0.18
10	26.27	9.45	196	0.22
15	24.04	10.09	186	0.22
20	23.31	10.44	016	0.13
25	23.26	10.49	094	0.18
30	22.54	11.02	197	0.26
35	21.80	11.84	087	0.26
40	21.49	12.27	088	0.46
45	21.16	13.02	079	0.43
48	20.67	13.86	029	0.34

CK-6 28 June 52		1600 EST Depth 52'	Weather 05 Wind NNW-2 Air 29.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.28	9.27	112	0.21
5	27.48	9.37	038	0.40
10	25.61	9.65	044	0.40
15	23.23	10.43	046	0.45
20	22.49	11.00	044	0.40
25	22.15	11.30	044	0.40
30	21.79	11.65	053	0.64
35	21.67	11.85	077	0.73
40	21.28	12.63	078	0.79
45	20.74	13.25	054	0.60
48	20.55	13.52	035	0.35

CK-6 28 June 52		1500 EST Depth 52'	Weather 05 Wind NNW-2 Air 30.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	29.09	9.18	170	0.22
5	27.20	9.37	0	0.00
10	26.54	9.46	073	0.31
15	24.08	10.08	082	0.38
20	23.48	10.34	065	0.34
25	22.89	10.77	065	0.34
30	21.95	11.57	090	0.41
35	21.61	11.88	063	0.40
40	21.43	12.38	062	0.67
45	20.65	13.61	070	0.60
48	20.58	13.77	--	--
50	--	--	085	0.28

CK-6 28 June 52		1700 EST Depth 52'	Weather 05 Wind NNE-2 Air 31.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.97	9.31	070	0.65
5	25.41	9.62	060	0.77
10	24.37	10.20	059	0.83
15	23.21	10.80	060	0.88
20	22.58	10.93	069	0.93
25	22.42	11.05	079	0.93
30	22.14	11.32	079	0.88
35	22.15	11.43	078	0.70
40	21.20	13.43	079	0.65
45	20.85	13.45	072	0.48
48½	20.65	13.76	071	0.53

CK-6 28 June 52		1800 EST Depth 52'	Weather 02 Wind ESE-4 Air 30.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.31	9.26	--	--
5	26.20	9.63	068	0.48
10	24.64	10.08	072	0.94
15	23.98	10.46	076	1.09
20	23.71	10.55	082	0.97
25	22.63	11.25	083	0.81
30	21.92	12.00	092	0.70
35	21.74	12.19	092	0.64
40	21.28	12.85	084	0.45
45	21.05	13.22	083	0.40
49	20.62	13.93	073	0.40

CK-6 28 June 52		2000 EST Depth 52'	Weather 02 Wind SE-4 Air 27.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.91	9.59	--	--
5	25.18	9.68	0	0.00
10	23.50	10.08	316	0.29
15	23.91	10.33	053	0.58
20	23.16	10.80	071	0.63
25	22.48	11.18	101	0.50
30	21.56	12.30	122	0.50
35	21.06	13.02		0.00
40	20.82	13.45	0	0.00
45	20.80	13.50	0	0.00
50	20.76	13.54	0	0.00

CK-6 28 June 52		1900 EST Depth 52'	Weather 02 Wind ESE-5 Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.69	9.43	--	--
5	26.51	9.48	068	0.64
10	24.39	9.68	075	0.97
15	23.69	10.17	075	0.81
20	23.22	10.45	080	0.64
25	22.65	11.12	104	0.79
30	22.00	11.75	073	0.35
35	21.21	12.87	073	0.28
40	20.89	13.37	074	0.35
45	20.83	13.47	062	0.28
50	20.60	13.80	073	0.28

CK-6 28 June 52		2100 EST Depth 52'	Weather 01 Wind SE-4 Air 26.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.79	9.75	331	0.50
5	25.30	9.87	349	0.41
10	23.69	10.35	059	0.29
15	23.38	10.57	098	0.29
20	22.88	10.90	139	0.38
25	21.99	11.91	147	0.29
30	21.52	12.37	315	0.22
35	21.26	12.67	325	0.26
40	20.93	13.32	0	0.00
45	20.62	13.82	0	0.00
50	20.44	14.03	0	0.00

CK-6 28 June 52		2200 EST Depth 52'	Weather 01 Wind SW-3 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.95	9.74	298	0.58
5	25.30	9.92	307	0.45
10	24.60	10.07	0	0.00
15	23.91	10.41	157	0.22
20	22.01	11.78	205	0.31
25	21.70	12.10	205	0.29
30	21.63	12.16	0	0.00
35	21.49	12.37	0	0.00
40	21.39	12.57	0	0.00
45	20.77	13.58	0	0.00
50	20.54	13.78	0	0.00

CK-6		0000 EST	Weather 01	
29 June 52		Depth 52'	Wind SSE-2	
			Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.52	9.69	260	0.70
5	25.53	9.69	263	0.65
10	25.42	9.75	260	0.65
15	25.45	9.77	265	0.51
20	22.70	11.30	243	0.52
25	21.90	11.91	259	0.29
30	21.54	12.28	257	0.22
35	21.50	12.47	27 ^L	0.22
40	20.99	13.15	274	0.18
45	20.61	13.74	166	0.29
48	20.58	13.78	069	0.13

CK-6 28 June 52		2300 EST Depth '52'	Weather 01 Wind SW-3 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.92	9.75	284	0.69
5	25.75	9.76	272	0.64
10	25.38	9.82	273	0.64
15	25.01	9.90	266	0.61
20	22.65	11.27	252	0.61
25	22.00	11.83	254	0.57
30	21.66	12.12	0	0.00
35	21.45	12.40	0	0.00
40	21.34	12.67	254	0.26
45	20.89	13.32	258	0.29
50	20.57	13.78	258	0.22

CK-6 29 June 52		0106 EST Depth 52'		Weather 01 Wind SSE-1 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.94	9.56	256	0.59	
5	25.93	9.57	233	0.51	
10	25.92	9.60	241	0.51	
15	24.35	10.32	252	0.59	
20	22.75	11.15	247	0.51	
25	22.12	11.57	227	0.30	
30	22.00	11.79	0	0.00	
35	21.55	12.37	276	0.12	
40	20.77	13.44	268	0.09	
45	20.44	14.02	0	0.00	
48	20.44	14.03	0	0.00	

CK-6 29 June 52		0207 EST Depth 52'	Weather 03 Wind SE-1 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.16	9.56	248	0.09
5	26.16	9.56	247	0.14
10	26.15	9.60	250	0.14
15	26.01	9.63	249	0.12
20	22.72	11.08	202	0.17
25	21.98	11.87	336	0.11
30	21.60	12.33	096	0.11
35	21.06	13.05	088	0.21
40	20.61	13.88	078	0.31
45	20.30	14.77	082	0.33
48	20.28	14.77	074	0.38

CK-6 29 June 52		0400 EST Depth 52'	Weather 03 Wind SE-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.20	9.47	--	--
5	26.20	9.49	091	0.34
10	26.04	9.53	091	0.41
15	25.78	9.72	085	0.46
20	22.69	11.05	087	0.48
25	21.46	12.32	090	0.41
30	21.36	12.44	091	0.45
35	20.97	13.15	086	0.50
40	20.68	13.78	084	0.58
45	20.39	14.53	087	0.60
49	20.35	14.62	087	0.22

CK-6 29 June 52		0305 EST Depth 52'	Weather 05 Wind SE-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.15	9.55	0	0.00
5	26.11	9.56	0	0.00
10	26.01	9.59	032	0.14
15	25.49	9.79	064	0.11
20	23.83	10.69	122	0.14
25	22.03	11.66	034	0.15
30	21.25	12.69	064	0.21
35	21.06	13.03	082	0.34
40	20.77	13.57	082	0.29
45	20.43	14.25	082	0.48
48	20.30	14.75	086	0.58

CK-6 29 June 52		0500 EST Depth 52'	Weather 02 Wind SE-1 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.81	9.55	060	0.59
5	25.83	9.56	062	0.59
10	25.83	9.63	080	0.65
15	25.80	10.17	088	0.65
20	22.17	11.55	099	0.65
25	21.89	11.88	101	0.66
30	21.46	12.28	102	0.60
35	21.21	12.87	099	0.53
40	20.57	14.27	084	0.38
45	20.43	14.62	064	0.29
49	20.42	14.66	060	0.34

CK-6 0600 EST Weather 02
29 June 52 Depth 52' Wind SE-1
Air 25.0°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.91	9.54	042	0.79
5	25.87	9.59	051	0.92
10	24.80	9.90	061	0.97
15	23.80	10.65	068	0.99
20	22.99	11.28	079	0.67
25	21.79	11.99	096	0.70
30	21.33	13.00	107	0.70
35	20.55	14.39	098	0.09
40	20.47	14.65	099	0.11
45	20.43	14.73	099	0.12
50	20.44	14.73	098	0.12

CK-6 0700 EST Weather 04
29 June 52 Depth 52' Wind 0
Air 25.3°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.88	9.52	042	0.77
5	25.86	9.53	061	0.77
10	24.92	9.95	053	0.77
15	24.27	10.42	041	0.70
20	23.07	11.47	061	0.53
25	22.43	12.12	080	0.45
30	21.74	13.02	0	0.00
35	21.07	13.77	259	0.12
40	20.96	14.19	269	0.11
45	20.83	14.50	009	0.11
50	20.82	14.57	0	0.00

CK-6 0630 EST Weather 03
29 June 52 Depth 52' Wind -
Air -

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.82	9.52	--	--
15	24.15	10.56	--	--
30	21.85	12.92	--	--
40	21.00	14.14	--	--

CK-6 0800 EST Weather 03
29 June 52 Depth 52' Wind 0
Air 26.7°C

Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.05	9.51	142	0.55
5	25.93	9.53	140	0.53
10	24.92	10.06	140	0.43
15	24.30	10.50	140	0.35
20	23.10	11.36	156	0.21
25	22.33	12.21	165	0.21
30	21.48	13.17	346	0.15
35	21.02	13.76	356	0.14
40	21.03	13.94	0	0.00
45	21.04	14.05	0	0.00
50	20.82	14.41	0	0.00

CK-6 29 June 52		0900 EST Depth 52'	Weather 03 Wind SW-1 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.91	9.60	007	0.23
5	25.69	9.67	009	0.22
10	25.05	9.94	006	0.21
15	23.90	10.77	213	0.12
20	23.29	11.12	199	0.21
25	22.83	11.72	201	0.21
30	21.39	13.25	294	0.17
35	21.38	13.32	306	0.14
40	21.28	13.57	256	0.11
45	21.14	13.66	247	0.14
50	20.85	14.31	260	0.12

CK-6 29 June 52		1100 EST Depth 52'	Weather 00 Wind 0 Air 28.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.16	9.62	233	0.45
5	25.93	9.60	227	0.53
10	25.89	9.62	244	0.41
15	25.54	9.77	244	0.33
20	22.95	11.67	244	0.29
25	22.45	11.98	235	0.30
30	22.22	12.06	265	0.30
35	21.86	12.45	288	0.33
40	21.60	12.90	256	0.29
45	21.26	13.52	250	0.32
50	20.89	14.13	249	0.24

CK-6 29 June 52		1000 EST Depth 52'	Weather 01 Wind 0 Air 26.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.23	9.54	287	0.38
5	25.95	9.62	280	0.33
10	25.66	9.67	237	0.27
15	25.14	10.02	246	0.19
20	24.20	10.47	262	0.21
25	21.96	12.58	265	0.21
30	21.84	12.63	290	0.24
35	21.76	12.77	270	0.19
40	21.41	13.27	237	0.21
45	21.11	13.73	242	0.23
50	20.84	14.30	276	0.19

CK-6 29 June 52		1200 EST Depth 52'	Weather 05 Wind 0 Air 31.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.49	9.21	234	0.70
5	26.62	9.42	239	0.77
10	26.08	9.55	239	0.59
15	24.72	10.22	234	0.59
20	23.48	11.01	239	0.51
25	23.22	11.20	239	0.41
30	22.44	11.95	239	0.34
35	22.06	12.12	229	0.46
40	21.57	12.91	224	0.45
45	21.15	13.78	229	0.26
50	20.77	14.47	229	0.11

CK-6 29 June 52		1300 EST Depth 52'	Weather- 05 Wind S-1 Air 29.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.73	9.17	232	0.73
5	26.75	9.43	241	0.73
10	25.88	9.60	249	0.67
15	25.47	9.76	250	0.57
20	24.05	10.63	249	0.48
25	22.97	11.55	248	0.45
30	22.61	11.71	238	0.48
35	21.99	12.43	239	0.45
40	21.16	13.77	067	0.09
45	20.88	14.05	0	0.00
48	20.85	14.23	248	0.12

CK-6 29 June 52		1900 EST Depth -	Weather - Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.52	7.63	--	--
5	26.54	7.63	--	--
10	26.55	7.65	--	--
15	26.55	7.72	--	--
20	25.36	8.45	--	--
25	25.29	8.61	--	--
30	24.44	9.00	--	--
35	24.39	9.04	--	--
40	24.41	9.03	--	--

CK-6 29 June 52		1800 EST Depth -	Weather - Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.36	7.52	--	--
5	27.08	7.53	--	--
10	26.09	7.87	--	--
15	25.44	8.49	--	--
20	25.02	8.76	--	--
25	24.65	8.92	--	--
30	24.60	8.93	--	--
35	24.40	9.07	--	--
39½	24.03	9.25	--	--

CK-12 30 June 52		0500 EST Depth -	Weather 05 Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.94	8.94	--	--
5	25.94	8.94	--	--
10	25.94	8.95	--	--
15	25.89	9.00	--	--
20	25.41	9.26	--	--
25	24.91	9.45	--	--
30	24.68	9.53	--	--
35	24.46	9.67	--	--
40	24.38	9.78	--	--
45	24.16	9.99	--	--
50	24.05	10.07	--	--
55	23.97	10.23	--	--
60	23.77	10.45	--	--

CK-12 29 June 52		0700 EST Depth 63'	Weather 05 Wind ESE-2 Air 26.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.65	8.20	--	--
5	28.67	8.20	172	0.14
10	28.25	8.35	126	0.29
15	27.53	8.54	186	0.31
20	26.96	8.74	188	0.36
25	26.80	8.83	119	0.31
30	26.39	9.02	117	0.34
35	26.26	9.22	115	0.36
40	26.24	9.24	115	0.41
45	26.20	9.26	117	0.50
50	26.19	9.30	132	0.48
55	26.22	9.38	147	0.45
60	26.23	9.44	132	0.41

CK-12 29 June 52		0600 EST Depth 63'	Weather 05 Wind ESE-2 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.65	8.87	106	0.14
5	25.65	8.87	106	0.21
10	25.29	9.04	109	0.19
15	24.66	9.20	101	0.26
20	24.39	9.33	101	0.27
25	24.33	9.41	101	0.28
30	24.32	9.50	099	0.32
35	24.27	9.53	098	0.34
40	24.23	9.57	097	0.50
45	24.19	9.61	097	0.41
50	24.17	9.68	097	0.45
55	24.16	9.70	106	0.45
60	24.10	9.78	106	0.46
63	24.10	9.78	--	--
65	--	--	112	0.48

CK-12 29 June 52		0803 EST Depth 59'	Weather 05 Wind SSE-1 Air 26.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	21.74	8.64	--	--
5	27.14	8.64	168	0.20
10	26.93	8.74	128	0.22
15	25.59	9.17	093	0.20
20	25.26	9.33	084	0.20
25	25.11	9.41	097	0.22
30	24.75	9.54	093	0.24
35	24.62	9.67	109	0.25
40	24.69	9.72	111	0.27
45	24.69	9.74	113	0.27
50	24.59	9.88	119	0.29
55	24.56	9.92	119	0.30
60	24.55	9.92	117	0.31

CK -12 29 June 52		0900 EST Depth 59'	Weather 05 Wind 0 Air 27.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.04	8.69	0	0.00
5	26.97	8.70	0	0.00
10	26.86	8.78	091	0.14
15	25.82	9.05	0	0.00
20	25.20	9.30	068	0.14
25	24.62	9.59	077	0.14
30	24.56	9.67	092	0.22
35	24.49	9.77	098	0.27
40	24.46	9.82	098	0.27
45	24.44	9.85	098	0.28
50	24.41	9.92	127	0.28
55	24.32	9.99	127	0.28
60	24.28	10.01	125	0.34

CK-12 29 June 52		1101 EST Depth 65'	Weather 05 Wind 0 Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.74	8.59	269	0.38
5	26.45	8.88	269	0.46
10	25.50	9.09	269	0.36
15	25.14	9.28	269	0.34
20	24.78	9.45	269	0.34
25	24.63	9.53	238	0.20
30	24.60	9.65	178	0.20
35	24.54	9.77	0	0.00
40	24.40	9.81	179	0.26
45	24.37	9.87	095	0.22
50	24.37	9.97	099	0.26
55	24.31	10.00	109	0.26
60	24.27	10.06	109	0.22
64	24.15	10.15	--	--

CK-12 29 June 52		1001 EST Depth 62'	Weather 05 Wind 0 Air 28.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.69	8.60	274	0.14
5	26.69	8.64	279	0.14
10	26.41	8.90	0	0.00
15	25.54	9.12	285	0.09
20	24.88	9.33	286	0.06
25	24.77	9.38	0	0.00
30	24.63	9.45	100	0.11
35	24.27	9.64	097	0.17
40	24.26	9.82	097	0.20
45	24.20	9.87	097	0.22
50	24.18	9.90	099	0.22
55	24.16	9.92	100	0.22
60	24.15	9.97	101	0.21

CK-12 29 June 52		1200 EST Depth 65'	Weather 05 Wind NW-1 Air 28.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.47	8.55	281	0.41
5	25.35	9.00	285	0.38
10	24.92	9.20	285	0.41
15	24.77	9.26	284	0.43
20	24.72	9.27	294	0.45
25	24.50	9.35	292	0.31
30	24.40	9.45	0	0.00
35	24.38	9.78	203	0.18
40	24.31	9.90	127	0.18
45	24.29	10.00	113	0.22
50	24.25	10.01	097	0.22
55	24.12	10.13	0	0.00
60	24.09	10.15	0	0.00

CK-12 29 June 52		1300 EST Depth 65'	Weather 05 Wind NW-1 Air 30.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.38	8.45	294	0.70
5	25.56	9.07	287	0.41
10	25.01	9.23	280	0.45
15	24.29	9.48	284	0.45
20	24.27	9.51	294	0.43
25	24.12	9.66	286	0.36
30	24.04	9.77	284	0.22
35	24.01	9.86	0	0.00
40	23.99	9.97	0	0.00
45	23.98	10.04	120	0.18
50	23.90	10.18	114	0.18
55	23.83	10.22	0	0.00
60	23.80	10.23	0	0.00

CK-12 29 June 52		1500 EST Depth 65'	Weather 05 Wind SW-2 Air 32.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.34	8.73	0	0.00
5	26.89	8.76	311	0.44
10	25.55	9.18	311	0.74
15	24.50	9.62	304	0.46
20	24.33	9.75	259	0.26
25	24.28	9.79	260	0.18
30	24.01	9.87	0	0.00
35	23.98	9.88	0	0.00
40	23.96	9.91	0	0.00
45	23.95	10.01	079	0.31
50	23.94	10.19	098	0.34
55	23.86	10.37	122	0.29
60	23.81	10.39	162	0.22

CK-12 29 June 52		1400 EST Depth 65'	Weather 05 Wind SW-2 Air 32.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.14	8.45	320	0.76
5	24.72	9.36	312	0.66
10	24.14	9.58	287	0.50
15	24.15	9.58	346	0.48
20	24.11	9.59	272	0.36
25	23.97	9.64	291	0.45
30	23.89	9.73	276	0.38
35	23.86	9.88	291	0.29
40	23.85	9.99	0	0.00
45	23.85	10.08	0	0.00
50	23.84	10.11	088	0.26
55	23.74	10.19	086	0.36
60	23.68	10.27	109	0.22

CK-12 29 June 52		1600 EST Depth 65'	Weather 05 Wind SW-2 Air 31.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.33	8.65	017	0.24
5	26.04	8.78	334	0.27
10	24.88	9.14	319	0.20
15	24.52	9.34	0	0.00
20	24.43	9.38	0	0.00
25	24.10	9.52	0	0.00
30	24.01	9.85	098	0.20
35	24.01	9.88	099	0.21
40	23.99	9.94	099	0.21
45	23.88	10.07	098	0.21
50	23.87	10.09	108	0.21
55	23.86	10.12	110	0.21
60	23.82	10.15	111	0.24

CK-12 29 June 52		1700 EST Depth 65'	Weather 05 Wind S-2 Air 29.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.83	9.11	123	0.20
5	25.86	9.22	073	0.15
10	24.68	9.40	071	0.09
15	24.50	9.50	088	0.12
20	24.36	9.55	0	0.00
25	24.16	9.82	081	0.15
30	24.08	9.93	083	0.17
35	24.04	10.01	086	0.20
40	24.00	10.06	092	0.19
45	23.98	10.08	108	0.24
50	24.00	10.12	119	0.30
55	23.91	10.22	127	0.32
60	23.86	10.25	--	--

CK-12 29 June 52		2000 EST Depth 65'	Weather 01 Wind S-2 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.15	8.70	268	0.17
5	26.07	8.74	239	0.15
10	25.82	8.90	0	0.00
15	25.64	9.02	122	0.19
20	25.37	9.17	124	0.14
25	24.99	9.38	124	0.21
30	24.52	9.62	124	0.20
35	24.42	9.66	127	0.21
40	24.30	9.80	127	0.21
45	24.27	9.83	127	0.24
50	24.10	9.92	129	0.27
55	23.97	9.99	130	0.32
60	23.91	10.04	130	0.35

CK-12 29 June 52		1800 EST Depth 65'	Weather 05 Wind SW-2 Air 30.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.60	8.67	107	0.30
5	24.66	9.39	137	0.15
10	24.33	9.52	127	0.19
15	24.27	9.62	106	0.19
20	24.23	9.64	106	0.21
25	24.18	9.78	106	0.21
30	24.20	9.82	106	0.21
35	24.19	9.86	109	0.24
40	24.20	9.88	109	0.22
45	24.20	9.91	110	0.21
50	24.14	9.98	111	0.22
55	24.03	10.04	127	0.21
60	23.92	10.08	127	0.22

CK-12 29 June 52		2100 EST Depth 65'	Weather 61 Wind S-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.35	8.51	325	0.20
5	26.40	8.49	297	0.20
10	26.24	8.55	0	0.00
15	25.34	9.00	142	0.12
20	25.25	9.09	142	0.14
25	25.09	9.22	143	0.14
30	24.92	9.25	145	0.16
35	24.41	9.73	146	0.21
40	24.25	9.83	149	0.48
45	24.14	9.87	150	0.41
50	24.09	9.89	146	0.43
55	24.04	9.93	144	0.41
60	23.69	10.90	134	0.46

CK-12 29 June 52		2200 EST Depth 65'	Weather 61 Wind S-2 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.42	8.55	324	0.29
5	25.36	8.60	234	0.29
10	26.27	8.70	235	0.22
15	25.53	9.00	0	0.00
20	25.29	9.29	145	0.22
25	24.80	9.58	145	0.26
30	24.43	9.70	142	0.29
35	25.16	9.67	142	0.34
40	24.00	10.02	142	0.34
45	23.75	10.27	144	0.31
50	23.70	10.32	145	0.31
55	23.63	10.37	146	0.29
60	23.61	10.39	147	0.26

CK-12 30 June 52		0000 EST Depth 65'	Weather 61 Wind W-4 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.45	9.19	261	0.18
5	25.53	9.16	0	0.00
10	25.12	9.29	255	0.18
15	24.83	9.47	281	0.29
20	24.64	9.54	309	0.45
25	24.39	9.72	315	0.46
30	24.33	9.75	312	0.55
35	24.21	9.87	317	0.55
40	24.16	9.96	318	0.38
45	24.08	10.06	317	0.18
50	23.92	10.27	0	0.00
55	23.73	10.38	318	0.18
60	23.69	10.42	328	0.18

CK-12 29 June 52		2302 EST Depth 65'	Weather 61 Wind S-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.07	8.86	292	0.29
5	26.03	8.87	292	0.26
10	25.89	8.90	291	0.26
15	25.24	9.23	281	0.26
20	24.72	9.50	282	0.26
25	24.52	9.53	282	0.26
30	24.35	9.67	280	0.41
35	24.26	9.78	281	0.41
40	24.12	10.01	283	0.29
45	23.99	10.13	0	0.00
50	23.82	10.34	0	0.00
55	23.73	10.40	0	0.00
60	23.72	10.40	0	0.00

CK-12 30 June 52		0103 EST Depth 65'	Weather 07 Wind W-3 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.56	9.23	264	0.22
5	25.58	9.22	266	0.18
10	25.60	9.22	0	0.00
15	25.60	9.30	263	0.13
20	24.81	9.55	305	0.34
25	24.46	9.78	297	0.41
30	24.48	9.80	301	0.45
35	24.22	9.94	326	0.43
40	24.13	10.07	325	0.45
45	24.12	10.07	337	0.45
50	24.08	10.10	340	0.29
55	24.00	10.28	0	0.00
60	23.83	10.50	0	0.00

CK-12 30 June 52		0201 EST Depth 64'		Weather 07 Wind W-3 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.66	9.15	0	0.00	
5	25.67	9.15	246	0.13	
10	25.68	9.15	291	0.29	
15	25.66	9.15	309	0.34	
20	25.59	9.17	299	0.34	
25	25.75	9.25	301	0.38	
30	24.33	9.75	301	0.36	
35	24.29	9.80	249	0.13	
40	24.26	9.81	249	0.22	
45	24.02	10.02	250	0.13	
50	23.98	10.10	0	0.00	
55	23.90	10.18	0	0.00	
60	23.80	10.37	0	0.00	

CK-12 30 June 52		0400 EST Depth 62		Weather 61 Wind W-4 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.95	8.84	304	0.22	
5	25.95	8.84	264	0.41	
10	25.75	8.98	264	0.46	
15	25.64	9.04	261	0.46	
20	25.46	9.18	262	0.55	
25	25.27	9.23	265	0.57	
30	24.62	9.47	262	0.57	
35	24.42	9.60	254	0.34	
40	24.35	9.70	245	0.22	
45	24.03	10.01	0	0.00	
50	23.95	10.13	026	0.26	
55	23.88	10.24	050	0.31	
60	23.72	10.39	056	0.38	

CK-12 30 June 52		0302 EST Depth 64'		Weather 19 Wind W-4 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oc)	Current		
			Dir (°T)	Speed (kts)	
0	26.01	8.83	276	0.53	
5	26.03	8.82	0	0.00	
10	26.03	8.83	304	0.41	
15	25.57	9.10	310	0.55	
20	25.30	9.20	325	0.29	
25	24.59	9.46	331	0.29	
30	24.44	9.58	333	0.29	
35	24.43	9.59	291	0.34	
40	24.35	9.71	292	0.31	
45	24.01	10.04	289	0.18	
50	23.95	10.13	0	0.00	
55	23.80	10.32	0	0.00	
60	23.72	10.39	0	0.00	

CK-12 30 June 52		0500 EST Depth 64'		Weather 62 Wind E-3 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	--	--	331	0.22	
5	--	--	241	0.22	
10	--	--	251	0.31	
15	--	--	259	0.29	
20	--	--	258	0.26	
25	--	--	257	0.29	
30	--	--	264	0.29	
35	--	--	264	0.26	
40	--	--	265	0.13	
45	--	--	0	0.00	
50	--	--	074	0.18	
55	--	--	074	0.22	
60	--	--	072	0.22	

CK-17 29 June 52		1500 EST Depth 42'	Weather 05 Wind W-1 Air 31.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.59	7.12	342	0.20
5	28.61	7.12	306	0.28
10	26.01	7.93	297	0.26
15	25.61	8.28	298	0.18
20	24.68	8.92	297	0.17
25	24.39	9.06	298	0.09
30	24.35	9.07	0	0.00
35	24.27	9.12	107	0.09
39	24.15	9.24	136	0.12

CK-17 29 June 52		1700 EST Depth 42'	Weather 02 Wind W-1 Air 34.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	28.13	7.50	123	0.32
5	27.88	7.50	149	0.17
10	25.94	7.95	102	0.20
15	25.66	8.31	104	0.19
20	24.91	8.75	133	0.24
25	24.53	8.99	136	0.24
30	24.46	9.04	110	0.26
35	24.30	9.11	122	0.28
39	24.11	9.20	123	0.29

CK-17 29 June 52		1600 EST Depth 42'	Weather 05 Wind W-1 Air 35.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.63	7.37	047	0.11
5	26.49	7.73	0	0.00
10	25.88	7.98	307	0.19
15	25.68	8.27	0	0.00
20	24.52	8.98	0	0.00
25	24.50	8.99	0	0.00
30	24.40	9.03	130	0.20
35	24.22	9.12	112	0.28
39	23.94	9.27	092	0.26

CK-17 29 June 52		1800 EST Depth 42'	Weather 13 Wind NNE-2 Air 30.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	--	--	076	0.58
5	--	--	101	0.50
10	--	--	098	0.38
15	--	--	102	0.53
20	--	--	102	0.61
25	--	--	117	0.50
30	--	--	100	0.46
35	--	--	095	0.35
39	--	--	092	0.32

CK-17 29 June 52		1900 EST Depth 47'	Weather 93 Wind N-2 Air 21.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	--	--	106	0.58
5	--	--	087	0.45
10	--	--	112	0.58
15	--	--	115	0.66
20	--	--	116	0.69
25	--	--	117	0.61
30	--	--	118	0.50
35	--	--	099	0.41
40	--	--	067	0.18
45	--	--	070	0.18

CK-17 29 June 52		2100 EST Depth 47'	Weather 11 Wind SW-3 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.01	7.63	345	0.20
5	27.00	7.63	348	0.14
10	26.80	7.75	113	0.36
15	26.15	8.13	094	0.31
20	25.32	8.60	099	0.23
25	24.57	9.00	089	0.20
30	24.53	9.04	096	0.26
35	24.22	9.17	103	0.27
40	24.12	9.22	172	0.16
45	--	--	172	0.16

CK-17 29 June 52		2000 EST Depth 45'	Weather 93 Wind N-2 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.78	7.63	012	0.23
5	26.75	7.71	115	0.21
10	26.64	7.75	117	0.33
15	26.56	7.78	127	0.32
20	25.97	8.26	117	0.20
25	25.16	8.62	0	0.00
30	24.90	8.78	0	0.00
35	24.41	9.07	051	0.14
40	24.10	9.22	055	0.12
45	--	--	056	0.14

CK-17 29 June 52		2200 EST Depth 47'	Weather 03 Wind SW-2 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.16	7.66	016	0.25
5	26.50	8.03	014	0.12
10	26.35	8.07	157	0.17
15	26.14	8.15	165	0.16
20	25.04	8.74	0	0.00
25	24.32	8.90	026	0.15
30	24.26	9.19	0	0.00
35	24.21	9.20	0	0.00
40	24.19	9.20	192	0.12
45	--	--	173	0.14

CK-17 29 June 52		2300 EST Depth 47'	Weather 03 Wind S-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.89	7.67	297	0.26
5	26.68	7.85	294	0.29
10	26.40	8.10	288	0.29
15	26.37	8.14	237	0.19
20	25.22	8.65	282	0.23
25	24.67	9.01	277	0.21
30	24.42	9.12	194	0.46
35	24.25	9.20	287	0.29
40	24.20	9.21	284	0.34
45	--	--	227	0.33

CK-17 30 June 52		0100 EST Depth 44'	Weather 01 Wind SW-3 Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.66	7.56	271	0.14
5	26.68	7.58	311	0.20
10	26.89	7.72	299	0.19
15	25.80	8.26	287	0.23
20	25.53	8.39	270	0.28
25	25.22	8.59	266	0.35
30	24.90	8.80	302	0.40
35	24.55	8.99	310	0.45
40	24.40	9.06	275	0.16

CK-17 30 June 52		0000 EST Depth 47'	Weather 03 Wind SW-3 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.64	7.62	345	0.65
5	26.67	7.62	339	0.51
10	26.65	7.66	333	0.65
15	26.85	7.81	260	0.51
20	26.36	8.01	270	0.51
25	24.75	8.89	261	0.59
30	24.64	8.91	258	0.51
35	24.40	9.10	270	0.59
40	24.26	9.12	265	0.59
45	--	--	280	0.70

CK-17 30 June 52		0200 EST Depth 44'	Weather 01 Wind W-3 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.58	7.42	281	0.11
5	26.66	7.55	278	0.20
10	26.67	7.71	350	0.23
15	25.80	8.20	311	0.24
20	25.48	8.40	294	0.21
25	24.94	8.77	296	0.19
30	24.42	9.02	299	0.20
35	24.41	9.03	0	0.00
40	24.42	9.04	0	0.00

CK-17 30 June 52		0300 EST Depth 47'	Weather 01 Wind NW-4 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.46	7.57	122	0.20
5	26.46	7.57	206	0.18
10	26.44	7.78	224	0.48
15	25.81	8.21	262	0.41
20	25.48	8.47	282	0.31
25	24.82	8.80	347	0.43
30	24.45	9.06	351	0.34
35	24.41	9.07	135	0.18
40	24.33	9.12	196	0.31
44	--	--	151	0.41

CK-17 30 June 52		0500 EST Depth 47'	Weather 61 Wind NW-2 Air 23.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.26	7.62	117	0.23
5	26.28	7.62	0	0.00
10	26.27	7.71	292	0.14
15	25.96	8.07	312	0.26
20	25.24	8.58	313	0.43
25	24.54	9.00	310	0.50
30	24.39	9.06	318	0.43
35	24.32	9.07	011	0.29
40	24.30	9.12	035	0.26
45	24.21	9.15	026	0.26

CK-17 30 June 52		0400 EST Depth 46'	Weather 61 Wind NW-4 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.37	7.63	--	--
5	26.37	7.63	262	0.29
10	26.37	7.66	262	0.41
15	25.94	8.05	277	0.52
20	25.48	8.42	247	0.26
25	24.88	8.76	243	0.41
30	24.43	9.05	245	0.41
35	24.35	9.10	145	0.36
40	24.30	9.11	282	0.38
45	24.28	9.13	--	--

CK-17 30 June 52		0600 EST Depth 45'	Weather 03 Wind WNW-2 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.38	7.51	118	0.20
5	26.35	7.58	123	0.09
10	26.26	7.71	0	0.00
15	26.06	8.08	0	0.00
20	25.05	8.70	312	0.15
25	24.65	8.92	0	0.00
30	24.53	9.01	0	0.00
35	24.35	9.12	057	0.11
40	24.30	9.13	056	0.12
42	24.27	9.15	--	--

CK-17 30 June 52		0700 EST Depth 44'	Weather 03 Wind WNW-2 Air 23.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.35	7.55	0	0.00
5	26.34	7.56	0	0.00
10	26.26	7.70	0	0.00
15	25.62	8.35	020	0.15
20	24.94	8.77	012	0.15
25	24.55	9.02	0	0.00
30	24.41	9.08	0	0.00
35	24.31	9.15	0	0.00
40	24.23	9.17	052	0.11

CK-17 30 June 52		0900 EST Depth 44'	Weather 03 Wind N-3 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.55	7.48	0	0.00
5	26.50	7.52	0	0.00
10	26.32	7.68	0	0.00
15	25.83	8.20	050	0.15
20	24.56	8.97	0	0.00
25	24.43	9.06	0	0.00
30	24.38	9.11	0	0.00
35	24.15	9.18	0	0.00
40	24.19	9.19	0	0.00

CK-17 30 June 52		0800 EST Depth 44'	Weather 02 Wind NNW-3 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.57	7.43	094	0.19
5	26.49	7.49	073	0.11
10	26.36	7.66	039	0.11
15	25.59	8.50	028	0.14
20	24.86	8.86	013	0.15
25	24.45	9.05	0	0.00
30	24.33	9.14	018	0.12
35	24.24	9.19	016	0.11
40	24.21	9.20	016	0.11

CK-17 30 June 52		1000 EST Depth 44'	Weather 14 Wind E-6 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.42	7.52	271	0.29
5	26.42	7.52	274	0.26
10	26.38	7.55	0	0.00
15	25.87	8.13	0	0.00
20	24.60	8.93	0	0.00
25	24.57	8.99	0	0.00
30	24.46	9.07	0	0.00
35	24.36	9.17	066	0.16
40	24.14	9.25	065	0.20

CK-17 30 June 52		1100 EST Depth 44'	Weather 03 Wind E-4 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.20	7.58	274	0.34
5	26.20	7.60	286	0.19
10	26.21	7.70	297	0.16
15	25.49	8.54	246	0.15
20	24.68	8.91	252	0.12
25	24.53	9.01	0	0.00
30	24.49	9.05	121	0.12
35	24.44	9.07	147	0.14
40	24.29	9.25	143	0.12

CK-17 30 June 52		1300 EST Depth 44'	Weather 03 Wind E-3 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.20	7.44	283	0.76
5	26.18	7.49	292	0.67
10	25.82	8.06	290	0.31
15	25.08	8.61	275	0.21
20	24.77	8.89	0	0.00
25	24.52	9.04	256	0.12
30	24.48	9.11	205	0.09
35	24.30	9.30	093	0.11
40	24.07	9.46	0	0.00

CK-17 30 June 52		1200 EST Depth 44'	Weather 03 Wind E-4 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.18	7.59	284	0.45
5	26.17	7.63	273	0.48
10	26.11	7.72	312	0.35
15	25.04	8.65	095	0.12
20	24.52	9.00	0	0.00
25	24.48	9.06	215	0.12
30	24.47	9.07	185	0.11
35	24.36	9.22	085	0.14
40	24.10	9.46	052	0.16

CK-17 30 June 52		1400 EST Depth 44'	Weather 02 Wind E-4 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.27	7.38	288	0.92
5	26.25	7.38	315	0.70
10	26.17	7.49	287	0.79
15	25.29	8.40	281	0.64
20	24.75	8.95	300	0.20
25	24.48	9.10	265	0.21
30	24.31	9.24	357	0.17
35	24.29	9.25	271	0.16
40	24.18	9.33	275	0.26

CK-20 30 June 52		0720 EST Depth 45'	Weather 03 Wind NW-1 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.83	6.75	0	0.00
5	26.81	6.80	032	0.12
10	26.81	6.86	037	0.12
15	26.74	7.08	037	0.12
20	26.10	7.85	032	0.12
25	25.59	8.17	038	0.15
30	25.12	8.41	032	0.16
35	24.99	8.62	034	0.15
40	24.91	8.72	034	0.15
44	24.87	8.75	--	--

CK-20 30 June 52		0840 EST Depth 45'	Weather 03 Wind NE-2 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.79	6.98	194	0.15
5	26.78	6.96	194	0.15
10	26.68	7.08	016	0.16
15	26.44	7.38	017	0.16
20	26.26	7.71	017	0.17
25	25.46	8.42	017	0.12
30	24.91	8.89	0	0.00
35	24.86	8.92	--	--
36	24.86	8.93	--	--

CK-20 30 June 52		0800 EST Depth 45'	Weather 03 Wind N-1 Air 27.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.83	6.74	032	0.11
5	26.80	6.88	033	0.15
10	26.78	6.95	034	0.15
15	26.64	7.20	026	0.15
20	26.05	7.55	016	0.17
25	25.31	8.26	336	0.16
30	25.01	8.56	315	0.15
35	24.92	8.68	313	0.11
40	24.86	8.74	0	0.00
44	24.86	8.75	--	--

CK-20 30 June 52		1009 EST Depth 38'	Weather 03 Wind E-2 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.23	6.97	198	0.23
5	27.23	6.99	281	0.11
10	27.21	7.02	199	0.09
15	26.92	7.40	074	0.19
20	26.63	7.75	020	0.12
25	25.43	8.76	058	0.12
30	25.39	8.80	0	0.00
33	25.37	8.81	--	--

CK-20 30 June 52		1106 EST Depth 38'	Weather 03 Wind E-2 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.67	6.98	209	0.28
5	26.67	6.98	203	0.25
10	26.67	6.98	199	0.19
15	26.67	7.00	200	0.09
20	26.32	7.44	0	0.00
25	25.38	8.31	199	0.11
30	25.04	8.55	0	0.00

CK-20 30 June 52		1300 EST Depth 33'	Weather 03 Wind ESE-3 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.76	6.47	238	0.53
5	26.76	6.57	238	0.58
10	26.75	6.61	228	0.58
15	26.75	6.79	198	0.45
20	26.72	6.88	198	0.50
25	25.36	8.23	198	0.17
30	25.17	8.51	0	0.00

CK-20 30 June 52		1205 EST Depth 33'	Weather 03 Wind E-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.78	7.48	244	0.36
5	26.80	7.50	243	0.36
10	26.80	7.55	244	0.29
15	26.80	7.60	197	0.36
20	26.61	7.91	198	0.18
25	25.60	9.00	198	0.18
30	25.37	9.31	0	0.00

CK-20 30 June 52		1402 EST Depth 33'	Weather 03 Wind E-4 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.84	6.43	228	0.69
5	26.85	6.45	228	0.69
10	26.84	6.47	228	0.31
15	26.84	6.50	228	0.58
20	26.79	6.60	198	0.63
25	26.67	6.85	198	0.41
30	26.21	7.55	198	0.18

CK-20 30 June 52		1502 EST Depth 33'	Weather 03 Wind E-4 Air 22.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.33	6.25	228	0.77
5	27.36	6.25	228	0.77
10	27.36	6.25	228	0.69
15	27.37	6.25	228	0.69
20	27.37	6.25	228	0.66
25	27.36	6.30	228	0.56
30	27.06	6.88	228	0.44

CK-20 30 June 52		1702 EST Depth 44'	Weather 02 Wind E-4 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.47	5.95	219	0.66
5	27.44	5.94	237	0.26
10	27.43	6.01	242	0.18
15	27.43	6.17	231	0.22
20	27.34	6.42	236	0.22
25	27.14	7.12	240	0.22
30	26.35	8.05	337	0.36
35	26.06	8.19	048	0.38
40	25.88	8.37	056	0.55
44	25.75	8.49	--	--

CK-20 30 June 52		1600 EST Depth 44'	Weather 03 Wind E-3 Air 21.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.98	6.12	241	0.34
5	26.99	6.12	237	0.20
10	27.00	6.12	237	0.34
15	27.00	6.17	227	0.34
20	27.00	6.21	225	0.34
25	27.00	6.39	222	0.28
30	26.96	6.90	227	0.28
35	25.98	7.68	236	0.34
40	25.33	8.35	242	0.20
45	25.14	8.61	--	--

CK-20 30 June 52		1800 EST Depth -	Weather - Wind - Air -	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.96	5.98	--	--
5	26.95	5.97	--	--
10	26.92	6.12	--	--
15	26.48	6.87	--	--
20	26.07	7.43	--	--
25	25.60	8.22	--	--
30	25.25	3.56	--	--
35	25.09	8.70	--	--
40	25.08	8.71	--	--
43½	25.08	8.71	--	--

CK-20 30 June 52		1908 EST Depth 44'	Weather 01 Wind ENE-4 Air 21.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.59	6.14	0	0.00
5	26.59	6.17	0	0.00
10	26.60	6.18	046	0.70
15	26.59	6.25	045	1.01
20	26.53	6.42	056	1.17
25	26.48	6.74	056	1.36
30	25.70	8.01	055	1.32
35	25.62	8.04	077	1.01
40	25.25	8.39	080	0.87
44	25.05	8.69	--	--

CK-20 30 June 52		2100 EST Depth 44'	Weather 01 Wind ENE-3 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.13	6.70	348	0.92
5	26.13	6.70	070	0.96
10	26.15	6.72	063	1.09
15	26.16	6.77	061	1.28
20	26.16	6.88	059	1.21
25	26.08	7.10	057	1.21
30	25.70	8.11	066	1.13
35	25.09	8.64	070	1.13
40	25.05	8.70	077	1.01

CK-20 30 June 52		2000 EST Depth 39'	Weather 01 Wind ENE-4 Air 20.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.43	6.53	012	1.13
5	26.41	6.47	034	1.09
10	26.41	6.58	041	1.28
15	25.85	7.64	036	1.28
20	25.82	7.68	032	1.21
25	25.64	8.05	032	0.77
30	25.53	8.16	024	0.87
35	25.45	8.22	027	0.77
38	25.45	8.23	--	--

CK-20 30 June 52		2200 EST Depth 44'	Weather 01 Wind ENE-2 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.13	6.97	345	1.32
5	26.09	6.97	026	1.05
10	26.04	7.10	036	0.96
15	26.04	7.23	051	0.96
20	26.06	7.41	045	1.09
25	25.47	8.31	026	0.92
30	25.36	8.40	016	0.65
35	25.30	8.49	008	0.65
40	25.28	8.50	008	0.58

CK-20 30 June 52		2300 EST Depth 44'	Weather 01 Wind ENE-2 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.24	7.15	--	--
5	22.23	7.14	040	0.65
10	26.24	7.13	040	0.82
15	26.31	7.47	047	0.77
20	26.29	7.52	049	0.77
25	26.01	8.20	047	0.70
30	25.64	8.71	050	0.70
35	25.46	8.99	054	0.58
40	25.42	9.01	--	--

CK-20 1 July 52		0100 EST Depth 46'	Weather 01 Wind ENE-2 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.54	6.44	240	0.13
5	26.56	6.45	233	0.18
10	26.85	6.49	032	0.18
15	26.77	7.06	068	0.31
20	26.55	7.77	115	0.45
25	26.37	8.07	120	0.41
30	26.11	8.35	126	0.22
35	26.09	8.43	0	0.00
40	26.05	8.48	0	0.00

CK-20 1 July 52		0000 EST Depth 48'	Weather 01 Wind ENE-2 Air 18.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.18	6.77	042	0.39
5	26.21	6.77	034	0.44
10	26.31	6.92	075	0.34
15	26.28	7.27	107	0.39
20	26.04	7.67	110	0.52
25	25.99	7.85	111	0.56
30	25.82	8.17	117	0.28
35	25.66	8.43	124	0.20
40	25.79	8.27	124	0.28

CK-20 1 July 52		0204 EST Depth 45'	Weather 01 Wind ENE-2 Air 18.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.66	6.77	215	0.09
5	25.74	6.83	0	0.00
10	25.74	6.83	236	0.09
15	25.74	6.99	320	0.12
20	25.75	7.70	336	0.17
25	25.53	8.09	080	0.16
30	25.40	8.37	072	0.21
35	25.34	8.43	106	0.25
40	25.32	8.45	136	0.21

CK-20 1 July 52		0305 EST Depth 45'		Weather 01 Wind NE-2 Air 18.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.44	6.55	212	0.17	
5	25.46	6.55	208	0.25	
10	25.53	6.73	296	0.14	
15	25.70	7.10	0	0.00	
20	25.67	7.77	027	0.14	
25	25.52	8.18	029	0.20	
30	25.42	8.34	028	0.23	
35	25.33	8.40	136	0.14	
40	25.29	8.48	0	0.00	

CK-20 1 July 52		0501 EST Depth 45'	Weather 01 Wind NNE-1 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.29	6.57	0	0.00
5	25.43	6.72	187	0.14
10	25.63	7.05	070	0.14
15	25.68	7.73	168	0.11
20	25.55	8.12	084	0.45
25	25.44	8.24	083	0.36
30	25.33	8.37	087	0.29
35	25.25	8.48	092	0.18
40	--	--	0	0.00
44	--	--	0	0.00

CK-20 1 July 52		0400 EST Depth 45'	Weather 07 Wind NNE-2 Air 18.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.42	6.58	207	0.20
5	25.44	6.60	206	0.20
10	25.49	6.75	0	0.00
15	25.66	7.01	0	0.00
20	25.60	7.95	057	0.20
25	25.45	8.27	046	0.20
30	25.34	8.40	025	0.15
35	25.33	8.43	0	0.00
40	25.27	8.54	0	0.00

CK-20 1 July 52		0600 EST Depth 48'	Weather 01 Wind NNE-1 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.26	6.72	0	0.00
5	25.39	6.80	082	0.09
10	25.47	6.98	062	0.14
15	25.60	7.46	066	0.22
20	25.56	8.07	067	0.69
25	25.38	8.37	065	0.62
30	25.34	8.38	062	0.47
35	25.33	8.38	070	0.26
40	25.28	8.40	069	0.22

CK-26 30 June 52		1800 EST Depth 27'	Weather 02 Wind ENE-4 Air 20.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.36	3.08	203	0.30
5	27.39	3.13	204	0.20
10	27.42	3.17	203	0.14
15	27.45	3.23	0	0.00
20	27.45	3.23	046	0.12
25	27.46	3.26	049	0.14

CK-26 30 June 52		2100 EST Depth 28'	Weather 01 Wind NE-2 Air 18.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.64	3.97	080	0.70
5	26.68	3.98	080	0.77
10	26.72	4.01	058	0.88
15	26.65	4.04	075	0.83
20	26.43	4.21	075	0.88
24	26.21	4.25	--	--
25	--	--	076	0.70

CK-26 30 June 52		1900 EST Depth 27'	Weather 02 Wind NE-3 Air 20.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.11	3.22	046	0.46
5	27.16	3.20	042	0.50
10	27.16	3.20	039	0.60
15	27.14	3.23	087	0.58
20	27.05	3.26	086	0.53
24	26.98	3.31	088	0.61

CK-26 30 June 52		2200 EST Depth 28'	Weather 01 Wind NE-3 Air 18.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.61	4.28	067	0.88
5	26.63	4.28	033	0.77
10	26.67	4.43	033	0.88
15	26.69	4.56	041	0.93
20	26.67	4.70	049	0.88
25	26.65	4.73	054	0.88

CK-26 30 June 52		2000 EST Depth 28'	Weather 02 Wind NE-3 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.08	3.60	056	0.83
5	27.14	3.60	062	0.77
10	27.09	3.68	069	0.88
15	27.03	3.75	096	0.88
20	27.01	3.80	074	0.65
24	27.00	3.82	--	--
25	--	--	068	0.65

CK-26 30 June 52		2300 EST Depth 28'	Weather 01 Wind NE-3 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.31	4.52	055	0.48
5	26.45	4.55	035	0.48
10	26.49	4.64	023	0.59
15	26.54	4.71	023	0.59
20	26.56	5.02	033	0.65
25	26.53	5.25	023	0.70

CK-26 1 July 52		0000 EST Depth 28'	Weather 00 Wind NE-3 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.95	4.75	084	0.45
5	25.97	4.77	084	0.67
10	26.01	4.79	034	0.18
15	26.14	4.92	072	0.29
20	26.18	5.01	067	0.31
25	26.45	5.30	043	0.43

CK-26 1 July 52		0300 EST Depth 28'	Weather -- Wind NE-2 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.60	4.27	211	0.64
5	25.71	4.36	212	0.45
10	26.07	4.95	224	0.27
15	26.18	5.18	212	0.12
20	26.44	5.41	035	0.09
25	26.42	5.60	032	0.12

CK-26 1 July 52		0100 EST Depth 28'	Weather 00 Wind NE-3 Air 17.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.88	4.60	200	0.09
5	25.96	4.77	266	0.12
10	25.92	4.84	312	0.09
15	25.91	4.87	316	0.16
20	25.96	5.11	332	0.14
25	26.38	5.13	017	0.14

CK-26 1 July 52		0400 EST Depth 28'	Weather 00 Wind NNE-2 Air 16.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.70	4.28	211	0.57
5	25.77	4.33	215	0.57
10	25.94	4.56	217	0.36
15	26.22	5.20	215	0.19
20	26.30	5.55	215	0.12
25	26.43	5.51	0	0.00

CK-26 1 July 52		0200 EST Depth 28'	Weather 01 Wind NE-3 Air 17.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.59	4.45	230	0.41
5	25.69	4.55	223	0.46
10	26.03	4.85	210	0.26
15	25.99	4.95	210	0.22
20	26.04	5.02	014	0.09
25	26.38	5.15	0	0.00

CK-26 1 July 52		0500 EST Depth 29'	Weather 00 Wind NNE-2 Air 17.5°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.80	4.76	212	0.33
5	25.82	4.80	226	0.31
10	26.01	4.64	222	0.22
15	26.22	5.12	0	0.00
20	26.25	5.32	0	0.00
25	26.34	5.38	062	0.12
26	26.35	5.40	--	--

CK-26 1 July 52		0600 EST Depth 31'		Weather 00 Wind NNE-2 Air 18.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.67	4.23	203	0.06	
5	25.91	4.39	042	0.12	
10	25.96	4.60	041	0.14	
15	26.03	4.76	041	0.24	
20	26.03	4.88	043	0.41	
25	26.05	5.27	047	0.34	
27½	26.22	5.58	--	--	
28	--	--	043	0.41	

CK-26 1 July 52		0900 EST Depth 30'		Weather 00 Wind NNE-3 Air 22.2°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.23	5.47	--	--	
5	25.22	5.53	118	0.20	
10	25.22	5.52	024	0.88	
15	25.25	5.62	044	0.93	
20	25.28	5.66	046	0.93	
25	25.33	5.67	036	0.77	
30	25.36	5.70	016	0.77	

CK-26 1 July 52		0700 EST Depth 31'		Weather 00 Wind NNE-3 Air 19.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current		
			Dir (°T)	Speed (kts)	
0	25.67	4.40	012	0.29	
5	25.68	4.41	024	0.31	
10	25.71	4.55	042	0.34	
15	25.74	4.66	042	0.52	
20	25.82	5.14	042	0.76	
25	25.90	5.37	046	0.73	
27½	25.92	5.44	--	--	
28	--	--	043	0.64	

CK-26 1 July 52		1000 EST Depth 29'	Weather 01 Wind ENE-4 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.32	5.75	039	0.53
5	25.31	5.7	034	0.45
10	25.30	5.77	038	0.64
15	25.30	5.92	036	0.64
20	25.35	6.11	046	0.73
26	25.45	6.49	--	--
25	--	--	046	0.70
29	--	--	030	0.60

CK-26 1 July 52		0800 EST Depth 31'	Weather 00 Wind NNE-3 Air 21.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.42	4.90	--	--
5	25.41	4.90	023	0.31
10	25.40	4.90	074	0.65
15	25.41	5.05	077	0.77
20	25.53	5.45	078	0.70
25	25.56	5.54	077	0.88
29	25.57	5.57	065	0.70

CK-26		1100 EST	Weather 01	
1 July 52		Depth 30'	Wind ENE-4	
			Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.36	6.02	035	0.19
5	25.32	6.03	046	0.20
10	25.31	6.08	044	0.35
15	25.35	6.12	048	0.57
20	25.34	6.22	044	0.45
27	25.38	6.60	046	0.45

CK-26 1 July 52		1200 EST Depth 31'	Weather 01 Wind ENE-3 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.56	5.72	321	0.14
5	25.52	5.75	073	0.16
10	25.49	5.85	068	0.24
15	25.37	6.10	055	0.23
20	25.39	6.18	034	0.20
25	--	--	048	0.26
27	25.38	6.49	--	--
28	--	--	079	0.22

CK-26 1 July 52		1500 EST Depth 29'	Weather 00 Wind ENE-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.32	5.27	220	1.25
5	26.22	5.31	221	1.16
10	25.55	5.78	220	1.09
15	25.41	6.09	214	0.70
20	25.38	6.25	223	0.43
26	25.35	6.43	217	0.22

CK-26 1 July 52		1300 EST Depth 30'	Weather 01 Wind ENE-3 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.89	5.58	227	0.53
5	25.78	5.70	214	0.58
10	25.69	5.99	227	0.41
15	25.55	6.04	249	0.22
20	25.41	6.31	227	0.22
25	--	--	188	0.18
27	25.37	6.47	184	0.18

CK-26 1 July 52		1600 EST Depth 29'	Weather 00 Wind ENE-2 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.41	4.66	226	1.33
5	26.27	4.77	218	1.18
10	25.68	5.22	231	1.14
15	25.61	5.45	229	0.93
20	25.40	6.12	228	0.70
25	25.37	6.27	229	0.53
26	25.37	6.32	--	--

CK-26 1 July 52		1400 EST Depth 36'	Weather 01 Wind ENE-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.19	5.15	203	0.81
5	25.82	5.43	185	0.73
10	25.45	6.02	232	0.45
15	25.37	6.37	230	0.45
20	25.34	6.49	162	0.34
25	--	--	190	0.26
27	25.34	6.52	198	0.22

CK-26 1 July 52		1700 EST Depth 29'	Weather 00 Wind ENE-2 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.30	4.68	220	0.94
5	25.94	4.98	219	0.94
10	25.67	5.27	225	0.79
15	25.60	5.35	224	0.79
20	25.54	5.51	224	0.57
25	25.46	5.75	223	0.40

CK-30 1 July 52		1000 EST Depth 47'	Weather 01 Wind ESE-2 Air 23.3°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.39	3.63	266	0.56
5	26.38	3.62	296	0.52
10	26.38	3.63	317	0.62
15	26.38	3.65	323	0.66
20	26.37	3.65	322	0.59
25	26.37	3.72	322	0.62
30	26.37	3.76	316	0.71
35	26.37	3.80	324	0.87
40	26.37	3.80	322	0.77
44	26.37	3.81	--	--
45	--	--	317	0.80

CK-30 1 July 52		1201 EST Depth 46'	Weather 01 Wind SSE-1 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.86	4.17	285	0.15
5	26.82	4.17	286	0.17
10	26.82	4.17	287	0.14
15	26.76	4.19	287	0.09
20	26.76	4.19	283	0.14
25	26.74	4.20	299	0.14
30	26.74	4.22	306	0.23
35	26.74	4.24	305	0.19
40	26.73	4.25	296	0.16
45	26.73	4.25	300	0.19

CK-30 1 July 52		1100 EST Depth 47'	Weather 01 Wind SE-2 Air 24.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.51	4.00	283	0.39
5	26.50	4.02	312	0.39
10	26.47	4.03	327	0.47
15	26.47	4.04	326	0.62
20	26.45	4.06	323	0.52
25	26.44	4.07	317	0.44
30	26.44	4.10	320	0.56
35	26.44	4.11	322	0.69
40	26.43	4.12	322	0.59
45	26.43	4.11	323	0.56

CK-30 1 July 52		1300 EST Depth 46'	Weather 00 Wind SSE-1 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.88	3.70	0	0.00
5	26.84	3.95	0	0.00
10	26.84	4.02	0	0.00
15	26.61	4.19	0	0.00
20	26.58	4.26	0	0.00
25	26.57	4.26	193	0.16
30	26.57	4.26	0	0.00
35	26.56	4.27	0	0.00
40	26.56	4.28	0	0.00
44	26.56	4.28	0	0.00

CK-30 1 July 52		1400 EST Depth 46'	Weather 01 Wind SSE-1 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.24	3.43	0	0.00
5	26.54	4.10	141	0.23
10	26.47	4.14	135	0.24
15	26.47	4.18	143	0.21
20	26.46	4.20	147	0.27
25	26.45	4.22	153	0.25
30	26.45	4.23	104	0.16
35	26.44	4.23	098	0.19
40	26.43	4.24	097	0.20
44	26.43	4.25	--	--
45	--	--	082	0.21

CK-30 1 July 52		1600 EST Depth 47'	Weather 01 Wind SE-1 Air 25.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.80	3.50	116	0.82
5	26.59	3.47	115	0.99
10	26.59	3.44	106	0.74
15	26.58	3.49	109	0.77
20	26.61	3.49	152	0.69
25	26.67	3.50	153	0.60
30	26.71	3.50	151	0.77
35	26.71	3.50	152	0.62
40	26.71	3.56	152	0.56
45	--	--	151	0.52

CK-30 1 July 52		1504 EST Depth 44'	Weather 01 Wind ENE-1 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.90	3.58	--	--
5	26.90	3.60	--	--
10	26.85	3.70	135	0.57
15	26.91	3.72	136	0.57
20	26.79	3.77	137	0.60
25	26.58	3.78	138	0.63
30	26.57	3.90	138	0.69
35	26.50	4.05	139	0.69
40	26.50	4.10	--	--

CK-30 1 July 52		1702 EST Depth 37'	Weather 01 Wind SSE-1 Air 25.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	27.03	2.99	120	0.85
5	27.00	3.08	119	0.77
10	27.00	3.08	114	0.74
15	27.01	3.12	117	0.62
20	27.05	3.12	148	0.82
25	27.04	3.11	150	0.74
30	27.04	3.11	151	0.90
35	27.06	3.12	152	0.85
40	--	--	153	0.77

CK-30 1 July 52		1800 EST Depth 38'	Weather 01 Wind SE-1 Air 23.9°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.80	2.66	119	0.69
5	26.80	2.74	120	0.77
10	26.80	2.70	120	0.56
15	26.80	2.74	120	0.52
20	26.80	2.81	124	0.59
25	26.80	2.81	124	0.62
30	26.80	2.81	123	0.56
35	26.80	2.82	138	0.28

CK-30 1 July 52		2007 EST Depth 42'	Weather 01 Wind E-1 Air 19.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.60	2.37	0	0.00
5	26.58	2.36	0	0.00
10	26.64	2.42	287	0.44
15	26.66	2.50	287	0.47
20	26.73	2.59	287	0.52
25	26.74	2.65	292	0.56
30	26.75	2.68	297	0.52
35	26.75	2.69	307	0.62
40	--	--	307	0.74

CK-30 1 July 52		1906 EST Depth 38'	Weather 01 Wind SE-1 Air 22.8°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.80	2.59	123	0.39
5	26.82	2.60	123	0.44
10	26.84	2.65	123	0.44
15	26.85	2.67	123	0.34
20	26.85	2.65	123	0.39
25	26.84	2.65	132	0.39
30	26.84	2.65	132	0.34
35	26.84	2.65	152	0.34

CK-30 1 July 52		2104 EST Depth 38'	Weather 01 Wind 0 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.86	2.53	292	0.57
5	26.86	2.57	313	0.67
10	26.89	2.66	314	0.67
15	26.93	2.77	313	0.61
20	26.95	2.77	312	0.61
25	26.94	2.82	312	0.58
30	26.97	2.89	292	0.57
35	26.98	2.91	292	0.50
40	26.98	2.90	--	--

CK-30 1 July 52		2200 EST Depth 43'	Weather 01 Wind 0 Air 16.7°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.71	2.98	287	0.50
5	26.73	3.02	287	0.65
10	26.73	3.05	290	0.65
15	26.82	3.09	289	0.70
20	26.83	3.10	297	0.82
25	26.85	3.14	297	0.77
30	26.85	3.13	296	0.77
35	26.85	3.12	292	0.77
40	26.85	3.14	287	0.65

CK-30 2 July 52		0002 EST Depth 40'	Weather 04 Wind 0 Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.29	3.76	287	0.56
5	26.30	3.80	287	0.56
10	26.30	3.85	295	0.62
15	26.31	3.90	294	0.69
20	26.31	3.90	294	0.69
25	26.33	3.91	295	0.69
30	26.33	3.91	297	0.69
35	26.32	3.91	297	0.62
40	26.33	3.90	297	0.47

CK-30 1 July 52		2303 EST Depth 43'	Weather 01 Wind 0 Air 16.1°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.40	3.36	287	0.70
5	26.42	3.39	299	0.7-
10	26.44	3.45	299	0.82
15	26.46	3.50	301	0.82
20	26.48	3.53	302	0.87
25	26.48	3.55	302	0.87
30	26.48	3.57	292	0.87
35	26.48	3.57	292	0.82
40	26.48	3.57	292	0.82

CK-30 2 July 52		0100 EST Depth 40'	Weather 04 Wind 0 Air 15.6°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	26.10	4.06	285	0.29
5	26.10	4.06	285	0.36
10	26.09	4.10	296	0.29
15	26.04	4.13	307	0.34
20	26.01	4.19	307	0.45
25	26.01	4.21	307	0.45
30	26.08	4.22	307	0.46
35	26.02	4.24	307	0.46
40	26.05	4.24	307	0.45

CK-30 2 July 52		0203 EST Depth 40'	Weather 04 Wind 0 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.97	3.70	120	0.09
5	25.97	3.72	060	0.20
10	25.99	4.11	0	0.00
15	25.99	4.28	0	0.00
20	25.97	4.36	0	0.00
25	25.97	4.38	0	0.00
30	25.91	4.38	0	0.00
35	25.90	4.40	0	0.00
40	25.90	4.42	0	0.00

CK-30 2 July 52		0403 EST Depth 44'	Weather 04 Wind 0 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.74	3.25	123	0.71
5	25.87	3.48	123	0.90
10	25.90	3.55	124	0.80
15	25.84	3.52	132	0.77
20	25.80	3.50	131	0.74
25	25.84	3.53	159	0.62
30	25.89	3.59	139	0.62
35	25.85	3.59	118	0.52
40	25.78	3.57	--	--

CK-30 2 July 52		0300 EST Depth 40'	Weather 04 Wind 0 Air 15.0°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.70	3.60	099	0.32
5	25.73	3.73	114	0.55
10	25.82	3.82	118	0.53
15	25.92	4.06	153	0.58
20	25.91	4.13	157	0.58
25	25.91	4.17	157	0.58
30	25.91	4.18	158	0.58
35	25.92	4.35	159	0.60
40	25.91	4.38	159	0.55

CK-30 2 July 52		0500 EST Depth 37'	Weather 04 Wind 0 Air 14.4°C	
Depth (ft)	Temp (°C)	Sal (o/oo)	Current	
			Dir (°T)	Speed (kts)
0	25.75	3.40	121	0.71
5	25.74	3.37	121	0.77
10	25.73	3.40	121	0.90
15	25.54	3.40	121	0.87
20	25.61	3.42	130	0.71
25	25.62	3.41	140	0.77
30	25.57	3.37	151	0.87
35	25.28	3.33	152	0.85
37	25.24	3.33	--	--

Section B
Chemical Data

Station	Depth (ft)	Date	Time EST	O ₂ (ml/L)	pH	Alk. (mg at/L)	Chloro. (µg/L)	PO ₄ (µg at/L)	Turbidity		
									400µµ	600µµ	800µµ
CK-12	0	29 June	0917	4.96	8.20	1.25	1.36	0.06	0.244	0.109	0.086
	10		0935	--	8.08	1.25	1.50	0.06	0.208	0.097	0.071
	20		0950	3.17	7.45	0.93	--	0.05	0.174	0.091	0.065
	30		1022	2.51	7.45	0.91	0.93	0.06	0.224	0.134	0.109
	45		1040	2.26	7.71	0.97	0.79	0.06	0.238	0.143	0.115
CK-20	0	30 June	0730	3.93	7.86	0.94	4.61	0.06	0.477	0.257	0.207
	10		0750	--	7.59	0.99	3.20	0.08	0.465	0.259	0.202
	20		0810	2.63	7.50	0.81	2.12	0.07	0.441	0.257	0.194
	30		0826	1.88	7.39	0.91	1.04	0.08	0.375	0.223	0.176
	40		0847	1.76	7.55	1.01	1.72	0.08	0.510	0.328	0.268
CK-30	0	1 July	1002	2.77	7.53	1.15	5.01	0.11	1.098	0.6215	0.481
	10		1020	3.28	7.18	0.83	5.69	0.12	1.61	0.740	0.544
	20		1035	3.68	7.32	0.78	5.12	0.12	1.171	0.684	0.565
	35		1053	3.20	7.32	0.73	5.43	0.10	1.710	1.222	0.951

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